

Converted Cane-Sugar Not Honey. Increase and Honey.

MORLEY PETTIT.

J. E. JOHNSON.

# AMERICAN BEE JOURNAL

WEEKLY—\$1.00 A YEAR.

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44th Year.

CHICAGO, ILL., FEB. 18, 1904.

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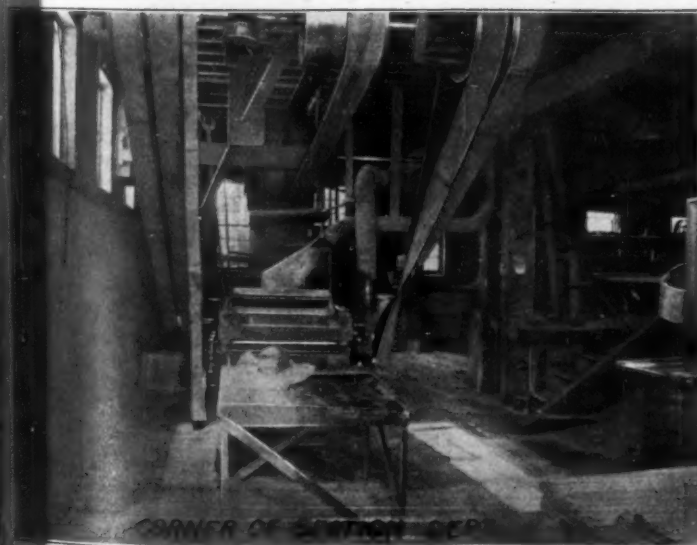
G. B. Lewis Co.—President and Interior Factory Views.



GEO. C. LEWIS, President.



CORNER OF  
BEE HIVE DEPT.



CORNER OF BEE HIVE DEPT.



PRESIDENT'S ROOM.

# DANZENBAKER HIVE.

## "FACTS ABOUT BEES"

A 64-page book written by Mr. F. Danzenbaker, giving a complete description of his famous hive and directions for using. Full of valuable information. Sent free on receipt of a two-cent stamp to pay the postage. Send for it.



O. L. HERSHISER.

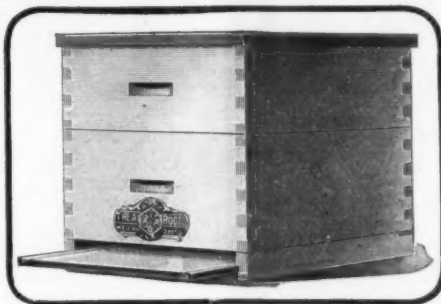
### The Best Bee-keepers use it.

Mr. Hershiser, manager of the New York State apian exhibits at the Columbian Exposition, 1893, where he won credit for himself and state by his magnificent display of comb honey, was selected as superintendent of the apian exhibits at the Pan-American Exposition. Being an up-to-date bee-keeper, and having a keen interest in the latest apicultural appliances, he installed a trial apiary of 10 colonies of working bees, mostly Italians, but with some hybrids, and one colony of black bees. The last named made the best record, storing 111 pounds in a Danzenbaker hive.

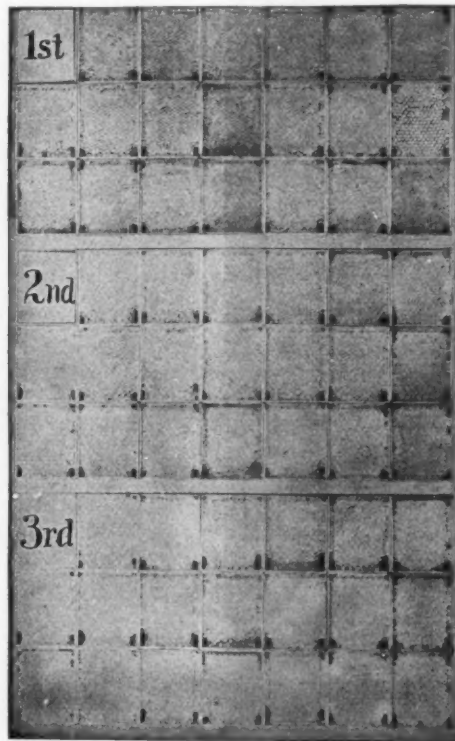
The Texas Honey Producers' Association has this day endorsed the 4x5 section super, and favor the Danz. style with H. S. separators. We feel sure we will have orders for you of from 1500 to 2000 Danz. supers. THE HYDE BEE CO. Floresville, Tex., Dec. 30, 1903.

I have kept bees three years, and owe my success to the Danzenbaker Hive. I shall as soon as possible send you a report of my honey crop. But one thing I know now, and that is, that one Danz. colony gave me over 100 lbs. first-class honey, while a ten-frame Dovetailed hive gave 25 lbs., and the Danz. winters in fine shape without feeding. Both hives had an equal footing.

JASON B. HOLLOPETER.  
Union Bridge, Md., Oct. 26, 1903.



The great popularity of the Danz. hive has brought the shallow frame into prominence. It must be remembered that no other contains the essential points of the Danz.



### PAN-AMERICAN PRIZE HONEY.

From a photo of the 60 prize Danz. sections produced in the State of New York.

First 20 sections, net weight 19 lbs., 11 oz.; stored in Danz. hives, awarded diploma and \$25.00.

Second 20 sections, net weight 19 lbs., 9 oz.; stored in Dan. hives, in the trial apiary at the Pan-American Exposition, awarded \$15.00.

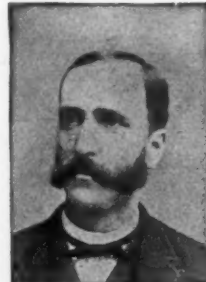
Third 20 sections, net weight 18 lbs., 13 oz.; produced in Danzenbaker hives, awarded \$10.00.

### Danzenbaker Sample Hive Outfit for First Orders.

Five Danz. AD6 sample hives 4 put together ready for paint, including covers and bottoms; one brood-chamber fitted complete as a model, fittings for the other four in flat, with foundation for one inch starters..... \$7.00

Five Danz. 4M sample supers including sections and foundation starters. All 5 supers are nailed, and one has inside fixtures in place as a model, the fittings for the other four in flat..... \$4.75

The Danzenbaker hive is kept in stock at all our branch houses and principal agencies all over U. S. Our bee-supply catalog for 1904 gives complete prices, and will be mailed promptly on request.



W. Z. HUTCHINSON.

### The Choice of an Expert.

Mr. Hutchinson, Judge of Apiarian Exhibits at the Pan-American Exposition, editor of the *Bee-Keepers' Review*, and an enthusiastic and thoroughly posted bee-keeper, was, without doubt, the most capable man who could be selected judge of any thing pertaining to apiculture. His decisions are given greater value because he is fitted to speak from both scientific and practical standpoints.

The Danzenbaker Hive will, I think, take precedence over all others. I am delighted with it, as it is simple and easily manipulated. R. H. FEPWORTH.  
Pietmaritzburg, Natal, Nov. 30, 1903.

### The Best Comb-Honey Hive.

I am very very much pleased that you are willing that I should recommend the Danzenbaker Hive. I have had a great many inquiries about it, and have not felt at liberty to recommend it over our regular hives. At first I was prejudiced against it, but the sales have increased without recommendations, and wherever I have sold they have bought again and praised the hive with extravagant claims, and I am forced to the conclusion that it is the BEST COMB-HONEY HIVE on the market.

J. B. MASON,  
Manager North-eastern Branch,  
The A. I. Root Co.

# THE A. I. ROOT COMPANY,

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# AMERICAN ESTABLISHED IN 1861 BEE JOURNAL THE OLDEST BEE-PAPER IN AMERICA

Entered at the Post-Office at Chicago as Second-Class Mail-Matter.

GEORGE W. YORK, Editor.

CHICAGO, ILL., FEB. 18, 1904.

Vol. XLIV—No. 7.

## Editorial Comments

### Honey and Beeswax Exports and Imports.

For the year ending June 30, 1902, there was exported from the United States, \$106,112 worth of honey; for year ending June 30, 1903, \$64,230. Beeswax exports for the same years, respectively, \$36,541 and \$21,337. The honey imports were for the year ending June 30, 1902, were 167,301 gallons, valued at \$56,383; for year ending June 30, 1903, 287,696 gallons, valued at \$115,400. The beeswax imports for the same years, respectively, were, 408,706 pounds valued at \$115,937, and 488,576 pounds valued at \$127,230.

### Long-Ideal Hives—Doolittle's Experience.

Mr. Doolittle tells in *Gleanings in Bee-Culture* that some years ago he made two hives each four feet long, according to the long-ideal plan of having all in one story without tiering up. One was used for extracted honey, the other for comb. Neither worked to his satisfaction, the worst feature being that the bees in them died each winter, being wintered outdoors because too unwieldy to carry in cellar. Notwithstanding this, some good authorities in Europe have used and advocated them; and in this country no less a man than O. O. Poppleton has used them successfully for many years, both in Iowa and Florida.

### Some Apiarian Nuts to Crack.

J. B. Kellen, in *Praktischer Wegweiser*, offers for solution ten problems of general interest, among which are the following:

Why do bees prefer to dwell and work only in the dark?

Why do queen-cells hang perpendicularly while worker and drone cells are horizontal? Mere lack of room is hardly a sufficient answer.

What means the apparently playful vibratory shaking of the hind parts of a bee as it waltzes over the comb?

What means the raking motion of the bees on the front of the hive as they steadily move back and forth?

How long will eggs remain good without being hatched?

How much, if any, influence do the drones exert as to the matter of swarming?

The solution of these problems may have little to do with the amount of honey to be obtained, but many who read them will be likely to say, perhaps with a sigh, "I'd just like to know, you know."

### Formalin Gas for Foul Brood.

J. E. Johnson writes as follows in the *American Bee-Keeper*:

Many think that germs are of animal life. The foul-brood germ is a plant, and it propagates by sporulating, which is a sexual act. Bacteria, like the pear-blight germ, is a plant, but is non-sexual. Now, don't forget this: Formalin gas will not of itself kill any germ at all, no matter how strong; but when the gas and the air are combined those two elements together produce formic acid, and the formic acid is what kills the germs and spores. So many say, "Oh, your box was not tight enough, therefore you failed," when the truth of the matter was, the box was too tight. Remember that the air is just as necessary as the gas. You don't want your box too tight. Let in lots of gas and lots of air. As long as you do that you will continue to produce formic acid. When the air stops coming in, you soon stop forming the acid. When you apply formalin gas to an air-tight cham-

ber you only produce formic acid so long as that air lasts, or until that air ceases to supply the necessary elements. After that, no matter how strong your gas is you get no acid. Hence, it is not effective. Remember also that formic acid will hurt neither bees nor brood. Bee-sting poison is formic acid, the same identical stuff that is produced by formalin gas and air.

If Prof. Harrison's instructions are not misunderstood, he directs that a current shall pass through the box in which is the burning lamp, and though the box containing the combs to be disinfected, there being thus a current of air passing entirely through both boxes, and when by the smell it is ascertained that the gas is escaping from the upper hole of the upper box, thus showing that said box is filled with the gas, both apertures of the upper box are closed to retain the gas. However important it may be to have this box tightly closed, after it is filled with fumes, according to Mr. Johnson it will not do to have all tight before that time.

Formic acid plays an important part in the economy of the hive, but, according to the latest scientific investigations, the poison of the sting is not, as Mr. Johnson says, formic acid, but something that Dr. Langer has succeeded in obtaining entirely separate from that acid.

### Hive-Covers and Their Requirements.

Of late there has been an unusual amount of discussion regarding hive-covers. Absolutely essential is it that a cover be rain-proof. In the opinion of some it is equally essential that a cover shall not twist nor warp. A demand next in importance, some claim, is that a cover shall be double, or have a dead-air space, thus making it a poor conductor of heat, so that it shall be warm in winter and cool in summer. The plain cover made of a single board has probably seen its day. Aside from its warping and twisting, Editor Root says that big pine trees are becoming so scarce that single-board covers are too expensive. Dr. Miller claims that double covers—the grain of the two parts running in opposite directions—covered with zinc, will neither twist nor warp; Editor Root thinks they will. They are expensive.

Who has tried the Arthur C. Miller cover, of cheap lumber, paste, and paint?

What is the most satisfactory cover at moderate cost, anyway?

### Sweet Clover Not Yielding Honey.

Speaking of goldenrod and sweet clover, F. Greiner says in the *American Bee-Keeper*:

"Undoubtedly they yield honey in some sections of New York, but, like catnip, the different mints, etc., they amount to nothing here."

That is not an unusual report of goldenrod, but has such a report been made before of sweet clover and catnip? Is it because they produce no nectar, or are the bees busy on something else?

### Queen-Rearing—An English View.

John Hewitt, the British queen-breeder, says in the *American Bee-Keeper* that when royal jelly is put into cells and larvae added the bees remove the jelly. Others have mentioned this; but Mr. Hewitt adds that when he tried putting in larvae without the food, he "found they developed almost every one into queens, instead of just a few." He continues:

I now pared drone-comb down, cut it into strips and put a larva in every alternate cell, and these were all reared into queens, although there was not a trace of royal food or the base of a queen-cell.

I did not, however, feel satisfied as if I gave just-hatched larvae,



they at once dried up in the cells, and very few would be developed. I then adopted the plan of giving the larvæ two days old, which were all soon on their way to become queens; when the cells were half-built I removed these larvæ and put in others just hatched from the egg, so that they tumbled, as it were, into a perfect bath of royal food; these queens invariably hatched out into splendid specimens.

Always on the "mend," I now used drone-larvæ two days old, for the following reasons: The bees start queen-cells on them just as readily as on worker-larvæ, and should one get missed or overlooked, it develops into a drone and not a small queen to play "old Harry" two days too soon; and when one has to depend upon help, it does not do to take risks.

### A Milk and Honey Farm in Maine.

"A land flowing with milk and honey" has been a familiar expression for more than three millenniums, but a modern milk and honey farm is not very common. C. D. Winslow is reported, in the American Bee-Keeper, as the proprietor of such a farm in Maine. The young man has so far reached 20 cows and 40 colonies of bees, and daily visits the city with his milk-cart, on which appears writ large: "Pure Honey and Jersey Milk."

### A Natural Remedy for Foul Brood.

Swarming is given by a writer in Praktischer Wegweiser as the best remedy for foul brood. Much the same as in the popular treatment, the swarm is thrown upon foundation or empty frames, and why should not much the same result follow? The trouble is that foul brood does not predispose to swarming.

## Miscellaneous Items

**The National Convention.**—Announcement is made that the annual convention of the National Bee-Keepers' Association will be held in St. Louis, on or about Oct. 1, 1904.

**Editor Morehouse,** of Boulder Co., Colo., wrote us Feb. 1, as follows:

We are having a very balmy winter, and I note that you in Chicago are having an unusually cold one. One morning the mercury was 4 below, but otherwise the lowest temperature of the season was 10 above, and since last September we have had almost continuous sunshine.

H. C. MOREHOUSE.

**Mr. E. France,** the father of General Manager N. E. France, celebrated his 80th birthday Feb. 4. He might perhaps be called the "Father of Wisconsin Bee-Keeping." That he may be spared yet many years will be the hearty wish of all.

N. E. France wrote us Feb. 6, that on that day his bees had their first flight since November, and nearly all were alive.

**Mr. C. H. Stordock,** of Winnebago Co., Ill., calls attention to an error made in referring to his honey crop, on page 51, in the editorial on "Big Average Yields of Honey." His crop for 1903 was 15,500 pounds, 15,400 of which was extracted honey. It appeared as 15,500 pounds of comb honey and 15,400 of extracted. We are glad to make the correction. The same error is found in the Annual Report of the National.

**A New Organization** of bee-keepers was formed at Galesburg, Ill., Jan. 30, and the following officers were elected: President, J. E. Johnson; Vice-President, J. H. Moore; Secretary, E. D. Woods, of Galesburg; Directors—for 3 years, A. H. Bridge; for 2 years, F. E. Brooks; for 1 year, C. H. Putnam. The next meeting will be held in April, the exact time and place to be announced later. Every bee-keeper within reach of this new association should become a member.

**A Good Reason** for discontinuing one's subscription to any paper is all right, but here is a queer one that we received recently:

GENTLEMEN:—I thought I told you to discontinue the American Bee Journal on account of that Weber formalin treatise you got off.

D. C. BACON.

When we got the card with the above notice we showed it to a friend of ours. After reading it he said, "The foolkiller seems to be



negligent." That expresses it exactly. He must be a veritable ignoramus who would stop taking a paper because it published a new idea or new experiment. We have often heard the expression, "He just saved his bacon." But here's a kind of Bacon that we fear is too far gone ever to be saved. He deserves the pity of sensible people.

**Apiarian Advertising Novelties.**—From time to time we receive samples of the advertising novelties used by dealers in various lines. Apiarian supply dealers are beginning to use them. Calendars seem to be those most generally used. We have received nice ones from The A. I. Root Co., Jos. Nysewander, V. H. Fisher, and others. Also from Walter S. Pouder comes a good-sized thermometer. All of these have the card of the sender printed on them. And all are useful. Perhaps the thermometer has the more lasting qualities, as it need not be sent out annually. But both calendar and thermometer are very useful. All have our thanks for remembering us.

**Reports from Different Localities.**—Mr. I. T. Osburn, of Santa Clara Co., Calif., wrote us as follows, Feb. 2:

"I don't see any letters about bees from this part of the country. We have 23 colonies, all doing nicely. I read the American Bee Journal, and find it very interesting."

I. T. OSBURN.

That is all Mr. Osburn wrote, and, so far as we know, it is the first time he has reported. Now, we can't manufacture reports. If they are not sent in, we can't publish them. Suppose, Mr. Osburn, that you set the example for your locality, and send in a report once a year. Then there would be at least one reporting from your part of the country.

**Mr. Geo. W. Brodbeck,** of Los Angeles Co., Calif., the new secretary of the National Bee-Keepers' Association, has been very sick. In a letter dated Feb. 4, he writes as follows:

DEAR FRIEND YORK:—I am sitting up a little to-day, so I am tempted to scribble these few lines to tell you that I have quite recovered from a severe attack of pneumonia. It was a hard fight, but good nursing, prayer, and a kind Providence, seemingly have given me a new lease of life. I have been confined to my bed for over a month, and I am very weak, but the doctor says I am doing finely.

My trouble developed from having a fire at one of my apiaries.

GEO. W. BRODBECK.

Mr. Brodbeck's host of friends will be pleased to learn of his recovery. He is not very strong physically, but with proper care, and in the glorious climate in which he lives, he will likely last as long as the most of us, if not longer. We hope he may be spared many, many years to carry on the good work he is doing.

**The G. B. Lewis Co.**—After the traveler bound for St. Paul leaves Milwaukee, he sinks back in his comfortable seat bidding farewell to all signs of activity until he shall reach his destination in the morning. As he leaves Watertown Station and crosses the Rock River, he sees on its bank a large building lighted up by thousands of electric lights, with smoke issuing in dense volumes from its chimneys. He hears a mighty rumble of machinery above the rush of the train, and in an instant he is past. This great building which the traveler has seen but for a moment, with a large warehouse, office building, and three immense lumber yards near by, comprise the plant of the G. B. Lewis Co., one of the two largest in the world, given over to the exclusive manufacture of bee-keepers' supplies, known far and wide to the honey-producing population of this country, Europe, and the entire world, and yet never heard of by many at their own door, who are still strangers to the busy bee.

Five floors compose the main factory. A miniature railroad runs into the ground floor, transporting the lumber in its early stages from the yards to the planers. In this department the wood is partially prepared, being planed for hives, polished for sections, and by means of an electric elevator is carried to the floors above, where operations are completed later on.

On the next floor below is found the iron-working department where the boring is done, saws are kept in shape by help hired for this purpose alone, and where special machines are constructed.

On the third floor is found the bee-hive department, where hundreds of saws sing from early morning till late at night. Here the hive-parts are made.

On the next floor above, the long basswood strips are sawed into correct lengths, and girls seated at benches sort these into different grades. The sections are also manufactured, crated and marked here, and finally sent down a long chute to wagons below, where they are put into storage or loaded on trains. In this portion of the factory are also made the woven wood and wire boxes in which bee-supplies are packed. This method of packing has characterized the Lewis shipments for years.

The fifth and top floor is given up exclusively to the packing department, 20,000 square feet of floor being used for this purpose. On this floor is also found the library of the G. B. Lewis Co., where every book known to the bee-student is for sale. Here comb foundation by the ton is packed into neat boxes, ready for shipment, and every other device that the bee-keepers can possibly want is on hand in large quantities.

This large industry did not spring up in a night. It represents the efforts, the study, the labor, and the persistence of over a quarter of a century. Thirty years ago the late Mr. G. B. Lewis, then a young man, engaged with his brother, Robert E. Lewis, in the business of making sash, doors, and blinds. In those days bee-keeping was not a specialty. A farmer here and there kept bees, and made, after a homely fashion, his own hives and other appliances. Occasionally one would come to the shop of the Lewis Bros. and have a few hives made, and from this small acorn of crude carpentry grew the mighty oak of Perfection in the machine-made bee-supplies turned out by the Lewis Company to-day.

In 1878, Mr. Chas. E. Parks came into the business, Mr. Robert Lewis having retired eight years before. In 1890 the business was incorporated, and ever since has been known as the G. B. Lewis Company. Mr. Parks proved a most valuable acquisition to the firm, and remained actively interested until his death, in 1895. He was a man of great ambition, a mechanic of the highest type, and by his inventive genius greatly improved the methods of manufacture. He was also the originator of many new machines, and finally invented what is now the well-known Parks' patent woven wood and wire shipping



and packing box. Owing to his successful efforts in this latter venture, he was sought by promoters throughout the United States, as well as England and France.

The plant is situated in the garden spot of Wisconsin. Surrounded by Nature in its most beautiful form it rests—peaceful without, though most active within—on the west shore of the river, and with its tall smoke-stack and piles upon piles of lumber, presents a most picturesque sight. Adjacent to the factory the beautiful Rock River dam rushes and rumbles in summer-time to the aid of the great engine, until its rumble, growing fainter and fainter, loses itself in the distant fields beyond where it mingles with the hum of the bees that profit by its toil. Conveniently located is this large industry, easily accessible to the lumber regions of northern Wisconsin and Minnesota. In the year 1903, 800 cars of basswood, elm, poplar and pine were shipped into Watertown and switched onto the G. B. Lewis Company's private tracks. To the average layman this seems enough wood to supply sufficiently the bee-keepers of a continent.

To arrive approximately at the business that is done by this Company in a fair season, the following facts covering the year just passed may be of interest: 50 car-load orders alone, and 10,000 smaller orders as well were entered and shipped; 10 tons of comb foundation, thousands of hives, and 15,000,000 sections were sold. The sections alone, if placed unfolded in a straight line, would more than reach from Chicago to San Francisco.

This concern now occupies in the business world a place of prominence envied by many, and enjoys a reputation justly earned. Its success is largely due to the modern and liberal methods employed by its officers, who exemplify the old adage, that "Liberality begets liberality." At the helm of this institution is found Mr. Geo. C. Lewis, its president, who has had the active management of the business for years. Mr. Lewis, whose portrait appears in this issue, is the son of the late G. B. Lewis. He is a young man of rare business sagacity, energetic, of high integrity, and thoroughly alive to the best interests of his company and its customers. Geo. C. Lewis is well known, and occupies a position of prominence among the leading manufacturers of bee-supplies.

The Lewis Company gives employment to over 100 people, and now, while the flowers and buds have not yet arrived, and the bees are still sleeping, and the ground is covered with snow, all hands are working, toiling, sweating. Day and night must they labor, office and factory alike, and voices are even now heard calling, loudest of all the jobber, the wholesaler next, and even the murmur of the bee-keeper himself is heard in the distance, increasing as spring approaches till it drowns out the noise of his swarming bees.

Having been in this hive of industry, we can personally testify to its greatness and superior qualities in every way. G. B. Lewis are, and have been for years, among our regular advertisers. Their goods and honorable dealing testify to their popularity as well as reliability.

**The Adulterators of Honey** in California are likely to "hear something drop" very soon. The San Francisco Examiner, of recent date, contained the following in reference to this matter:

"The food inspectors of the Board of Health have been informed that much adulterated honey is being sold in this city. Acting on this information they have, under the direction of Dr. Hassler, chief food inspector, purchased a number of samples of honey from many different dealers. These have been turned over to the industrial chemist for analysis, with the result that the suspicions of adulteration have been confirmed.

"In a few days," said Dr. Hassler yesterday afternoon, "we shall make arrests. The experiments have not yet been completed, but we know already as a fact that glucose is being used freely to adulterate honey."





## Contributed Articles

### Converted Cane-Sugar is Not Honey.

BY MORLEY PETTIT.

WE know that chemists have succeeded in putting together the elements in their proper proportion which constitute living organisms, but failed to add the spark of life. It is facetiously related that hen's eggs were produced which hatched chickens, but *without feathers*. In



either case, while the scientist would understand that his efforts had not been crowned with success, he would need to report his results with caution lest the public should receive a wrong impression therefrom.

On page 21, Prof. A. J. Cook has a scholarly article on the chemistry of honey, and its relation to the other sweets. While I indorse all the Professor has said on its food-value and its superiority over other sweets, I would guard against a misconception which might arise in the lay mind from some of his statements with reference to nectar, cane-sugar, and honey. For instance, "Digestion of cane-sugar converts it into honey, so honey is practically cane-sugar already digested." This gives a wrong impression. The conclusion most commonly arrived at would be that bee-keepers were able to produce honey by feeding their bees sugar syrup, and that they were in the habit of doing so.

Let us consider carefully this statement which he quotes from Dr. Kellogg. There are two statements, the second apparently meant to be the converse of the first. But the word *practically* is inserted.

Let us see farther down: "The nectar of the flower is not honey." True. "It is *virtually* [my italics] cane-sugar." He then explains *practically* and *virtually* by the incidental insertion of "*slightly* flavored with some organic extract from the flower." "The bee .....converts it into a mixture of dextrose and levulose. This is honey." No, not without the "organic extract," which, in most cases, more than "*slightly*" flavors it.

This constituent which distinguishes honey from all other substances, is described by another eminent chemist as "certain volatile oils and indefinable matter" which give the flavor and aroma of blossoms from which it is gathered. What an important part the flavor and aroma play in honey all dealers know. Some markets demand honey of a certain flavor, and will have none of a certain other variety generally considered its equal. Prominent and successful dealers have their standard blend of honey produced by mixing

honey from different sources in fixed proportions, and if, for any reason, they are unable to supply this particular flavor, their sale of honey is seriously affected.

Now, if the statement that "honey is practically cane-sugar already digested" were given prominence in the public press, what would be the result? A revival of the "Wiley lie" with renewed vigor, and also a hard blow to the reputation of extracted honey, whose good name we are trying so hard to put beyond reproach.

I would say with Prof. Cook, "It seems to me that one of the blessed uses of our Christianity, is to teach and persuade people to let in the light." I would add, however, that it is better, sometimes, to be conservative even in matters of such import as stating "truth," and to be especially careful that we state a *whole* truth. Ontario, Canada.



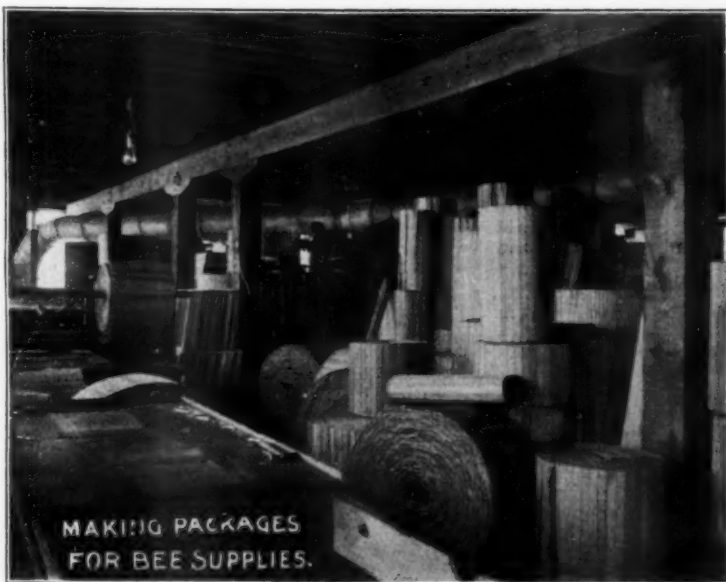
### No. 2.—Getting Both Increase and Honey.

BY J. E. JOHNSON.

(Continued from page 102.)

I HAD only one swarm abscond; that was my fault. They lit in a tall tree, and in getting them down I dropped them, and although I hived them they were as mad as hornets, and I think that is why they left. On a warm day, if I have a large swarm thus, I take a blanket or piece of carpet, wet it in a tub of cold water, wring out some of the water, and put over the hive for a day or two, letting it hang down on the south side. I also use a ventilated cover, and have practically no trouble from absconding. I have a young peach-orchard in and near the apiary, and in there the swarms would cluster and were easily hived. I always shake the bees down in front of the hive and let them run in.

Now, in regard to raising that extracting super and putting a super of sections between, I have tried that plan and want no more of it; that is, when there is brood in it; queen-excluder or no excluder, I get pollen in the sections, and some-



times brood besides. I wanted those extracting supers for brood-rearing. That was the means of my getting such roaring colonies before they swarmed. Profuse swarming from small colonies is disastrous to surplus honey from either swarms or old colony, no matter how you work them. I have not had good results by cutting the brood-chamber in two.

Now, as to natural or artificial increase, I have tried both for something like 20 years (I have moved and started anew in different localities several times). If, in a good season, I have only a few colonies, give me natural increase every time for honey the same year; but build the colonies up big and strong by feeding judiciously and giving large brood-chamber (I don't want anything but an 8-frame hive, using an extracting super above at the proper time); and

when you have large swarms they are a decided success for surplus honey, if you work them rightly. If I wanted only moderate increase, I would give the bees from the old stand to the second swarm, and prevent any third swarms.

Nuclei are all right for increase, but you will have to wait until the next year for your surplus honey. My best yield per colony was 230 pounds, that was from a first swarm; 200 pounds of that was comb honey, and that colony has an extracting super on now pretty well filled with honey that I have not counted; and, by the way, that queen was reared last year from a 1-frame nucleus, the nucleus building their own cell, and the frame was well covered with bees. I had another queen reared this way, and she was good, but did not do as well as this one.

Now, I have a neighbor bee-keeper of considerable experience, about 3 miles away, who uses full sheets of foun-

then be better enabled to know how to get the most honey.

I wish to add just a few words in regard to combs or full sheets of foundation instead of strips for a large swarm. When you put such a swarm on combs or full sheets the queen will fill it clear full of brood, or the bees will fill it with honey. Which is the better? If full of honey, then they will never empty it for her late in the summer, and you will have a weak colony of old bees for winter. If the queen fills it full of brood, it will take the honey of that best honey-flow to feed that brood, and so on. Just like the man who had a team. He kept them well. Each year he planted corn enough to raise feed for his team. He worked all summer to attend to it, and when winter came he fed the corn. Then the next summer he did the same way. The team fared well, but as for himself he got nothing. You may have your bees on nice all-worker comb if you like, having worked hard against Nature to get it; then get some honey to rear bees, to get a little more honey to rear a little more bees, and so on. But, for my part, I want to rear a whole lot of bees just in time to use them for surplus, and then put them to work in supers not just to rear more bees. I aim to keep bees for the money there is in it, not for the mere fun of hiving swarms; and 250 pounds per colony, spring count, is not merely the result of a good season, but of being prepared for it and manipulating the bees according to the honey-resources I have. I consider that that part made me half of that honey as well as increase.

Now, don't understand me to say I want a large amount of drones, but I don't begrudge feeding quite a few. I think some drones are a necessity for good work. Perhaps the workers feel better and work harder because they sing their song of cheer to them. Don't begrudge the bees a little cheerfulness. Their life is short and full of hard labor.

Knox Co., Ill., Dec. 17, 1903.



**Why Not Help a Little**—both your neighbor bee-keepers and the old American Bee Journal—by sending to us the names and addresses of such as you may know do not now get this journal? We

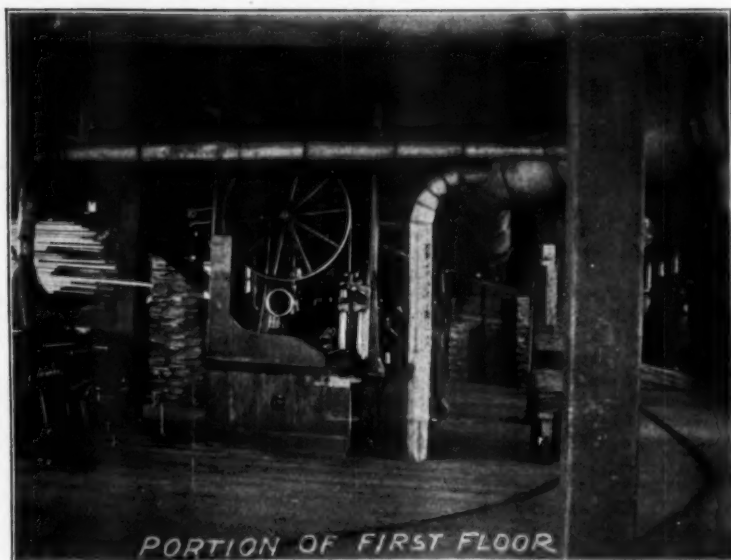


dation in brood-frames for swarms; his increase was a good deal less, and he got less than half the honey that I did per colony, spring count (his was all comb honey). Also, 3 other bee-keepers of considerable experience got only about 50 to 75 pounds per colony, spring count; but they lost several swarms.

My honey is all sold but 11 cases of comb honey and about 150 pounds of extracted, one little store in our little village having sold, so far, 14 cases of my honey. Some of these cases held 32 sections, but most of them only 24. To private families I have sold as high as 5 cases, and one man has taken 7 cases, and 1 gallon of extracted, but some of this he sent to friends. To some families I sold as much as 4 gallons of extracted. The extracted honey I have sold only at my house. Several other stores have taken from 5 to 10 cases. I sent 10 cases of my best honey to a large city to see what it would bring. After transportation and breakage was deducted it brought me less than my No. 2 did at home. There is very little honey in the bee-keepers' hands near here now.

I am wintering the bees on the summer stands, protected by newspapers and stores-boxes, excepting 8 colonies which are in the cellar. I have no objection to any one following the old, orthodox way of manipulating bees. The supposed-to-be proper way 50 years ago is not the way of to-day; neither will the supposed-to-be proper way now be the way forever in the future. There is no orthodox way of manipulating bees that will prove to be the only good way in all localities, with all people in all seasons.

Now, in closing, let me drop one word of advice to the beginner: Don't play with the fire. Don't invest a lot of money in bees or fixtures expecting soon to make a fortune. Don't try any way or plan of manipulating bees on an extensive scale until you have tried it in a small way. Don't depend upon bees alone for your living; but if you find after several years' experience that you can handle bees successfully, then you will know if it will pay you to keep bees in your locality, and as to its resources for honey. You will



will be glad to send them sample copies, so that they may become acquainted with the paper, and subscribe for it, thus putting themselves in the line of success with bees. Perhaps you can get them to subscribe, send in their dollars, and secure for your trouble some of the premiums we are constantly offering as rewards for such effort.

**Our Wood Binder** (or Holder) is made to take all the copies of the American Bee Journal for a year. It is sent by mail for 20 cents. Full directions accompany. The Bee Journals can be inserted as soon as they are received, and thus preserved for future reference. Upon receipt of \$1.00 for your Bee Journal subscription a full year in advance, we will mail you a Wood Binder free—if you will mention it.



## Convention Proceedings

### THE COLORADO CONVENTION.

Report of the Proceedings of the Colorado State Bee-Keepers' Convention, Held in Denver, Nov. 23, 24, and 25, 1903.

BY H. C. MOREHOUSE, SEC.

(Continued from page 104.)

#### HIVE-COVERS—LONGMONT HIVE.

Mr. Aikin—In that Longmont hive-cover, in which there are two boards on top, covered by muslin painted on, does not the muslin crack over where the boards join?

Mr. Gill—A few covers split the cloth there, but when the cover keeps on shrinking it does not tear the cloth. If the boards swell, it will. But they will not swell if there is a circulation of air underneath, and not too many quilts are used.

H. Rauchfuss—I had about 150 covers covered with canvas painted on both sides. The canvas is now all rotten. If I cover them again, I shall use Neponset building paper. I have covered a good many with paper. I use a piece of lath nailed next each side edge of the cover, on top. These laths are not quite so long as the cover, so they leave a little space at each corner for the water to run off. In this space, at each corner, I fasten down the paper with the nails and convex tin washers that are ordinarily used for building paper, so the paper is firmly fastened without depending upon the laths. The laths are also cut slanting at each end, so as to guide the water to run off at the extreme corners, so it will not drip on any part of the hive. I find paper is cheaper and better than cloth.

Mr. Gill—I use very thin muslin, costing 4 cents a yard.

Mr. Aikin—How much lumber is in an 8-frame Longmont hive?

Mr. Gill—16 feet with the frames. The halved corners keep in better repair than those of the dovetailed hive.

F. Rauchfuss—If the pieces of the dovetailed hive are not put together for two weeks or more after receiving them, they do not fit any more. With the halved corners there is no such trouble.

Mr. Gill—The corners of the rabbets are also much better in the hives with halved corners. With this hive I also use an inner cover. Most inner covers are made to fit the inside of the hive. This is the same size as the outside of the hive, hence leaves no possible chance for outside bees to get into the hive. I never use the inner covers in winter. With this kind of outside cover, that has a rim all around the edge, I use but one thickness of burlap. The bees winter better.

H. Rauchfuss—If you leave the burlap off entirely the bees will winter just as well. I have seen bees that wintered without a cover, besides having the spaces between the combs half filled with sand that blew in.

Mr. Gill—Do you think it best to winter with supers on top filled with chaff?

H. Rauchfuss—I used to do that, and I used to contract the entrance. Those were two mistakes. The bees did not winter so well. The combs became moldy and icy.

Mr. Gill—My wife picked a lot of colonies that had young queens, and fed them 26 pounds apiece of sugar syrup in the fall. That started so much breeding that they consumed a great deal of it. But they reared much brood late in the season, and she wintered all of them. Another lady had 65 colonies in a grove, with supers full of chaff over each one. In the spring there were 40 weak colonies left.

ADDRESS BY MRS. GRENFELL.

Mrs. Grenfell, State Superintendent of Education, was called on for a speech. She contrasted the present conditions with those of 30 years ago, when mining interests were exclu-

sively predominant, while now there are gold mines in every line of work, and we need not fear if Aspen is a shadow of what it once was, or if Gilpin County or Cripple Creek become so, because we have opportunities in agriculture such as no other State has; suggested that we need all the sweetening possible in these days of strenuousness and scandal, and concluded by congratulating the bee-keepers on the progress of their work, and wishing them the greatest success imaginable, feeling grateful to them, and especially to their pioneers for their work, and hoping the meetings would continue in interest and value.

#### THE NATIONAL ASSOCIATION AND BEE-DISEASES.

Pres. Harris—I don't think the proper effort has been made by our Association in the way of getting the National Association to get appropriations to investigate the different diseases of bees. I hope the Committee on Resolutions will take this up. I hope that in connection with the National Association we may save ourselves many dollars in this way.

H. Rauchfuss—I move this be referred to the Committee on Resolutions, and copies of the resolution sent to the National. We need such aid, not only in investigating diseases, but also along other lines, and are justified in asking it. [Seconded and carried.]

#### FEEDING SYRUP FOR WINTERING BEES.

F. Rauchfuss—Last winter many colonies had to be fed, and sugar was resorted to. What has been the experience in feeding thick and thin syrup?

Mr. Gill—I found it necessary to do considerable feeding. It is claimed by many that the work of inverting the syrup ages the bees, as the age of bees depends upon the amount of work they do. I fed 8000 pounds of sugar, commencing Aug. 20. The earliest fed was thin, the later thicker, but it was never thickened enough to granulate. At first the proportion of sugar and water was made half and half, and later 90 pounds of sugar were used to 50 pounds of water. As an illustration, I fed 60 colonies—swarms that had been hived late, all with young queens—26 pounds of syrup apiece. They were fed late, until they had built out their combs. The 26 pounds of syrup apiece was worth say 75 cents. The colonies, after being fed, would have brought \$6.00 apiece. Ninety percent of them would have died otherwise. It was not so much the feeding of sugar that put them in good condition as the fact that they reared large numbers of young bees, bees with vigor. It makes no difference if we do wear out one set of bees, if another set is reared. That yard was fed in the open air. Other yards were fed with pie-tin feeders, using excelsior as a float, under covers having a two-inch air-space. The bees always keep the syrup warm in such feeders. You would be surprised to find how late you can feed. Warm water was used in making the syrup.

H. Rauchfuss—I fed some by taking the fixtures out of a super, tilting the hive, and setting in the super, wrong side up, a piece of propolized canvas that had been used for a quilt, with the ends folded up. It would hold a good deal, sometimes a gallon. For floats I threw in leaves. Some of



OFFICE, MANAGER ORDER DEPT.



the colonies did not take it all down for a week, but they took it whenever it was warm.

Mr. Gill—I found 8 queenless colonies on Oct. 8; made the 8 into 4, and fed all they would take till Dec. 1, and every one wintered, while 60 percent of the apiary they came from died. That shows what a little stimulative feeding will do late in the fall. I would rather have a hatful of late-reared bees than a bushel of July and August bees for wintering.

#### INSPECTION OF BEES AND THE LAW.

Pres. Harris—Bee-Inspector Pease reports that the attorney of his county has taken the position that unless the bee-keeper calls on the inspector, the inspector shall not inspect. I recommend action.

Mr. Gill—Isn't it a fact that under the existing law the inspector has no right to visit? I don't believe, myself, the inspector has a right to work in such a way as to get a lot of names on his list. Our rights cease where others' begin.

Pres. Harris—This trouble will make a precedent, and other counties, too, will take the same action.

F. Rauchfuss—Bees are taxed in nearly every county, and require protection. As an illustration, a man near Denver kept bees for 10 years, and had foul brood all the time, but never would have an inspector near. If I have such a neighbor I have a right to call on an inspector to visit him.

Mr. Gill—If a bee-inspector finds foul brood, and leaves it, go for the inspector. He is amenable. But he should not use the summer salary-getting.

F. Rauchfuss—As one of the framers of the law, I will state that we never intended to put such a narrow construction on it.

Mr. Gill—I received a card from a man asking me to go and look at his bees. According to the interpretation of Mr. Rush, I have no authority to go.

(Continued next week.)

#### Fillmore Co., Minn., Convention.

The Fillmore County Bee-Keepers' Association held their second annual meeting at Preston, Minn., Jan. 14 and 15, 1904. There was a good attendance and a good interest manifested. It was decided to start a bee-keepers' supply agency at Preston the coming year, where members of the Association could get supplies at reduced rates, and where beeswax could be collected and sent away in bulk to be made into foundation. A grade of honey was established, and an effort will be made to hold the price of fancy and comb at not less than 12½ cents per pound for the local markets. Heretofore the price has been as low in some cases as 8 and 10 cents per pound.

A meeting of one short session will be called to be held during the next county fair, to ascertain the supply and dictate the prices on the honey crop.

Our members all became members of the National Association in a body, and it was hoped that other associations will do likewise.

P. B. RAMER, Sec.

Fillmore Co., Minn.

#### Worcester Co., Mass., Convention.

At a meeting of the Worcester County Bee-Keepers' Association, held in Worcester, Mass., Jan. 9, 1904, there was much amusement in the reading of the article in the American Bee Journal about "He-Bee Molasses." How much that thought is illustrated in every-day life, when an ignorant man or woman tries to talk on some matter with which they are entirely unacquainted. When a person gets up in a bee-meeting and starts to talk it does not take long to "size him up," so to speak, and determine the amount he knows. But in the case of our convention, Dec. 12, we didn't have to wait for Mr. Arthur C. Miller, of Rhode Island, to speak to determine his caliber. His whole manner before an audience is to impress one with the fact that *here* is a man that can talk on a subject he knows something about; and so it was with Mr. Miller. If any of the readers of the Bee Journal are ever near when Mr. Miller is to speak, put yourselves to a good deal of trouble, if necessary, and go and hear him.

Worcester and the State are waking up. We now have a State association, small to be sure, but "from small beginnings" great things have grown. We hope to do something with a pure-food law, and also to help out those whose

bees are suffering from foul brood. I am inclined to think Mr. Miller is under the impression that it is not foul brood but something else that is destroying bees in certain sections of our country.

Our society is progressive, and we are determined to make 1904 a banner year. We have speakers in view, outings and picnics in contemplation, and our aim is to usher in 1905 with 100 members.

C. R. RUSSELL, Sec.

Worcester Co., Mass., Jan. 11.

## Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

#### Delightful Winter Weather.

We are having delightful winter weather, and for the last few days the bees have been enjoying a flight. All colonies seem to be pretty strong.

The American Bee Journal is all right, and I enjoy reading it very much.

MRS. MARY A. RAY.

Adams Co., Ohio, Feb. 8.

#### Cold Weather—Observatory Hive.

The weather is unusually cold, but my bees are well prepared for winter on the summer stands, and are all in good condition.

The honey crop was not very good last year, not nearly so large as the year before.

I always read the American Bee Journal with much interest, and its coming is always welcome.

I had a glass hive for observation in our garden last summer. Its entrance opens through a fence, so the bees did not disturb, or were not disturbed, by the people looking at the hive. We found this hive much pleasure, and it had many visitors among our friends.

Newcastle, Dela., Jan. 9. MRS. E. G. BRADFORD.

#### An Experience With a Bear in an Apiary.

DEAR SISTERS:—How would you like to go out to the apiary some peaceful evening, to look at the skunk-traps, and have your vision confronted by overturned hives, and have the conviction assail you that the expected had happened just when you didn't expect it, and at last a bear had visited your bees? That was what happened to me last autumn.

I retreated in good order, returning with reinforcements, and my father and I spent a strenuous time righting the wreckage and killing bees on each other.

The next day we sent word to the third selectman to come to our aid with his bear-trap. The bear wouldn't notice that trap, but one of the cats did—he escaped by a miracle, with a flesh-wound from one of the teeth, which disabled a fore-leg for some time. That night we had the worst thunder-storm of the season. Quite late my sister and I went to see if the bear was in the trap—he wasn't. But he had had more honey, and had left another hive lying on its side, and papa and I once more righted things as well as we could. Before morning the bear upset that hive again and got some more honey.

About that time the postmaster offered his assistance, and it was arranged that he and the third selectman, and a young man that had been withdrawn from the hayfield on the doctor's orders (because an able-bodied young heifer had knocked him down and run over him), were to come the third night and shoot the bear. Well, he anticipated them and returned to the same hive for the third time; that was "three times and out" for the queen. Papa heard the fence break, and hurried to the apiary in time to see a big bear retreating in the late twilight across the narrow field in front of the hives. He seemed reluctant to leave his feast, looking back as he went.

The moon was young yet, and set early that night, and although the bear returned, he would not venture out from the thin growth of trees across the field until it was pitch

dark. At last the three men waiting in the bushes determined to fire, and the three shots really "rang out as one." He was hit, and must have been wounded seriously, for he ran away with no care as to making a noise, leaving a trail of blood. They tracked him next day until the trail disappeared, and as he has not been back since, I hope the poor thief is dead.

When I regretted the inconclusive result, the third selectman said mournfully, "Nobody feels as badly as I do."

Here is a clipping which may be the sequel to the episode:

#### NOT A HOLE, BUT A BLACK BEAR.

The motto, "Look before you leap," has been handed down for generations and generations, but it is a curious fact that a person has never suggested the thought of "thinking before looking." If there had ever been a motto like the latter, it is probable that Gideon L. Joy would never have received the shock to his system that he experienced when he looked into a hole in the ground and found a big, black bear about three inches from his nose. Mr. Joy did not stay looking into that hole any longer than was necessary to recover from his astonishment, but got up, and the way he legged it for home and a gun would probably have made the bear laugh if he had stayed to witness Mr. Joy's sprinting act. When Mr. Joy returned with his rifle the bear was nowhere to be seen, nor has he been seen since. Mr. Joy will likely get his gun first and look afterward if such a case ever comes up again.—Kennebec Journal.

The clipping is from the New York Sun, but the item appeared originally in the Ellsworth American, our county paper. Mr. Joy mentioned is a neighbor of ours, and father-in-law of the third selectman. He said it was an "awful thin bear," and sent word that he thought it was the same one, "for he saw honey around its mouth!" Please put one of Dr. Miller's joke labels on that last statement.

You have missed me in making your list of sisters who are members of the National Bee-Keepers' Association; I am one-third of the membership from Maine. That is not so bad as North Carolina, but, still, Maine can not boast. I am wintering 36 colonies this season; they are packed on the summer stands, which is the way I have wintered ever since I began to keep bees, and so far my winter losses have been insignificant. My honey crops are insignificant, too, compared with yours of last summer. I am envious!

I hope Mrs. Griffith will have better success than I did on hatching hens' eggs over bees. I only succeeded in spoiling some eggs, and I am not a greenhorn at hatching eggs, either, having had considerable experience and varying results with both hens and incubators. I am afraid it won't do except in a warm climate. It was cold and rainy here, and one colony I had them on began to die of starvation before I was aware of their desperate state; of course, the eggs got stone cold. A. R. AUSTIN.

Hancock Co., Maine, Jan. 20.

I am very glad to add one more sister to the list of members of the National. The name appeared on the list merely as A. R. Austin, without any Miss or Mrs. attached to it.

### Poor Season for Honey in 1903.

Last season was a poor one for honey. We got an average of 25 pounds per colony, fall count, and increased from 16 to 20.

MRS. BEN FERGUSON.

Ford Co., Kans., Jan. 7.

## Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.  
By E. E. HASTY, Sta. B Rural, Toledo, Ohio.

#### OWNERSHIP OF HONEY IN BEE-TREES.

Those Iowa boys that cut the bee-tree—something within me objects to calling them exactly thieves. The most widely spread feeling in regard to this matter is that wild bees and honey belong to the first finder, but that the tree they happen to be in belongs to the land-owner, of course. This general feeling looks to me like natural justice. With due apologies to the Iowa law and legal luminaries, the boys didn't steal anything from the man, but they cut his tree and trampled his corn, both damages that

natural justice says should be paid for. We must grant that some States may have laws that do not conform to the above; and some localities may have public sentiment or usages that do not conform. Apparently the boys sized the man up, and decided that there was not much chance of getting their property with his permission. He had the possession, which is sometimes called nine points. Thereupon they took justice (and injustice, also) into their own hands—and it didn't pay. But 'spects we might any of us trust them to bring an uncounted sum of money home from town all the same. Page 820.

#### BEES DYING WITH CANDY ABOVE THEM.

Yes, good plan to keep in mind the fact that there is such a thing as a colony's starving to death with plenty of candy right over the cluster. It may not be very common, but dry candy, and dry air, and bees which can not spare any moisture from their bodies, spell death when the three letters are put together. Page 824.

#### POLLEN-BOUND COMBS—APIARY BULLETIN.

Mr. Blunk wonders what my mind is about combs blocked with pollen. Apparently he is already doing better than my experience has usually been. Guess we must each cut and try the different ways, and follow the way that succeeds for the time being. Conditions vary widely, and must be met accordingly. Solid pollen, dry, and permeated with white fungus, looking as if the cells had been filled neatly with white lead, well, I should say give one such in the middle of a new swarm. In four days look in, and whatever they have not dislodged cut it out, combs and all.

Bulletin-board, eh? Tip-top idea for forgetful folks. Obligated to see duty staring us in the face. I think none of the numerous published pictures of apiaries shows a bulletin-board. Don't think I ever heard of one. Here's a feather for his crown—inventor of the apiary bulletin-board! Still, "locality" may have its word to say. In some localities it may call down such a deluge of pestering questions from outsiders that the owner may be glad to exchange it for my way. Well, what is my way? Paper fastened on a large cardboard, laid or hung where it will be handiest, and backed with a solemn resolution to look at it every day. Page 830.

#### GRAND CANYON—HOME OF BAD ANGELS.

The last front picture for the year 1903—Grand Canyon as Hutchinson gives us a peep into it, is a very *unearthly* sort of looking place. Still less does it look heavenly. Kind of a home of the bad angels, with the angels all gone on a vacation. (All gone but one, and he tempted 'em to go down.)

#### RULES FOR GRADING COMB HONEY.

Unpleasant to be cutting into honey, and so few buyers capable of judging it—presumably these are the reasons that grading rules do not demand high quality. Nevertheless I guess R. L. Taylor is right, that such a rule ought to go in. At least it would notify the many (who don't even know that much) that there is such a thing as good flavor and poor flavor in equally good-looking samples of honey. Page 835.

#### MOVING BEES BETTER THAN PLANTING FOR HONEY—SOMETIMES.

Sorry to have to tell John Kennedy and others that in a location where the natural flora are disinclined to "give down," the highly recommended plants will probably fail also, either in whole or in part. He has already seen it so with buckwheat. Moving bees to where the pasture is good may not seem an easy job, nor a desirable one; but there's more light and hope in it than in planting honey-plants on barren hills. Page 837.

#### ANSWERS BY PRIVATE MAIL.

And would he just send the answers by private mail, because they are so uncertain and unsatisfactory when printed in the Bee Journal? There you have it, Dr. Miller. Plenty of taffy oftentimes—once in awhile a fine bolus of anti-taffy to swallow. Page 838.

**Maple Sugar and the Sugar Bush**, by Prof. A. J. Cook; 44 pages; price, postpaid, 30 cents. This is by the same author as "The Bee-Keepers' Guide," and is most valuable to all who are interested in the product of our sugar-maples. No one who makes maple sugar or syrup should be without it. Order from the office of the American Bee Journal.



## Dr. Miller's Answers

Send Questions either to the office of the American Bee Journal, or to Dr. C. C. Miller, Marengo, Ill.

### What Caused Their Loss?—Langstroth Hive.

1. I had 14 colonies of bees, mostly blacks, last season, but I find on examining them, in their winter quarters, that I have only 5 living. The rest died with plenty of honey in the hives. They were packed in chaff, both in super and around the hive. Can you give me any reason for their demise?

2. I have been using 8-frame dovetailed hives, but wish to change to the Langstroth. As there are none in this locality, would you tell me the exact inside dimensions of same? ONTARIO.

ANSWERS.—1. The cold has been remarkably severe and long continued; the colonies ate up all the stores within reach, and the cold was so severe that it was death to leave the cluster to go for more, so they starved with plenty of honey in the hives, but not within reach. Under such circumstances the weakest colonies have the poorest chance.

2. The dovetailed and Langstroth are the same size. In fact, a dovetailed hive is nothing more nor less than a Langstroth hive with locked corners.

### Bees Disappearing—Getting Increase—Strengthening Colonies.

June 28, two large first swarms issued and clustered together. I hived them in a new hive containing frames, but neither brood, comb, nor even foundation. I gave them boxes for surplus honey at once.

On July 9 I noticed a lot of them clustered on the front of the hive (the day was a hot one), and the next day they "lit out" for parts unknown without clustering at all. The next morning I tried to investigate conditions. I bungled the matter enough to break down about half the combs, and got discouraged, but found out this much: The 9 frames (Langstroth size) had been filled with comb. The 4 that broke down were over  $\frac{3}{4}$  full of honey; only a few cells of brood in those combs; just about bees enough left to cover the remaining 5 frames.

On Aug. 9 I looked for brood quite thoroughly, but found none. Two weeks later, on examination, I found plenty of brood.

1. What made them go in that way after getting to work?

2. I have 8 colonies now, apparently wintering well so far. I should like to increase, another season, to about 20 colonies. How is the best way to manage it so as to have them strong?

3. Two colonies are rather small. How can I strengthen them at setting-out time? NEW YORK.

ANSWERS.—1. I don't know. The great heat, especially if the hive was unprotected, may have had something to do with it. Are you sure they're all right now? No brood Aug. 8, and plenty of it two weeks later looks a little like laying workers.

2. I should need to be a little better acquainted with you to say just what plan for you, and perhaps I wouldn't know enough then. Much depends upon the season, and if you have a poor season you may be sure of weak colonies if you increase from 8 to 20, unless you feed. A safe way is to use the nucleus plan, at least for all increase after doubling, and at the last make everything strong from the start. Read, read. Study your bee-book carefully, as well as back numbers of your bee-papers, and when you are thoroughly familiar with principles you'll know better than I can tell you just what is the best way for you. If you are going to have as many as 20 colonies, one book is not enough for you. Neither is one paper.

3. You can't. At that time you would do more harm than good to take from stronger colonies to strengthen weaker ones. Keep them well protected, awaiting warmer weather, either letting them build up themselves, or giving them sealed brood from other colonies when any colonies become about strong enough to swarm.

### Rearing Brood in February—Cellar Ventilation.

1. Will a colony rear brood in February or March if they have been given frames of sealed honey in the fall? I gave them outside frames, which, I don't think, had any pollen or bee-bread. This swarm I caught late in August, so they did not have time to procure stores for winter.

2. I carried my bees into the cellar, removed the honey-board, put a Hill's device over the brood-nest, made a cushion of burlap, filled it with chaff, put an empty super on top, and in it the cushion, and mashed it down firmly. What I want to know is this: Do I need to put on the cover? The cover is on now, but I find on examining them that moisture gathers around the edges, and the cushion feels a little damp. I thought by leaving the cover off, this might escape.

3. My cellar is 18x12 feet, and 6 feet high, no windows or doors. Now, as the snow has drifted over all, I have a trap-door from the kitchen only. I have 6 colonies in here. Do they want any ventilation from the outside?

Knowing nothing about bees, but having a liking for honey and the care of bees, I made a hive and fitted it with frames of my own

manufacture. I do not know just the dimensions, but it was large enough, as you can see, for I took the honey out of one frame and it weighed 9 pounds, and the top-bars of the frames were only  $\frac{3}{8}$  of an inch, and they were bent nearly to the bottom of the hive. The bottom is nailed on, with about  $\frac{1}{8}$  inch left for an entrance. The bees I purchased for \$1.00 in June, from a neighbor. Now, this was 3 years ago, and I now have 6 colonies from this one, by natural swarming. What I was going to say is this: I have been unable to get a pound of surplus honey from this colony in all these years. They simply would not go in the sections any way I could fix them. I have removed the outside frames and put a shallow frame in its place until they had the foundation drawn, and then I removed it above, but they would not go an inch above the brood-nest. Wanting to increase as much as I could I have kept this colony, but another spring I will transfer to a modern hive. This colony has now about 4 inches of honey above all frames, and at the back end nearly to the bottom. I have been reading the American Bee Journal, also "Bees and Honey," and have found out my trouble with this colony. The other colonies I have from this one did well—and no trouble to get them in the sections.

MICHIGAN.

ANSWERS.—1. A good colony wintered outdoors will be likely to rear brood before February is over, if it has pollen. If no pollen is present you need not expect brood till pollen can be gathered.

2. The moisture seems to indicate that the cover should be either removed or raised sufficiently for the escape of the watery vapor.

3. For so small a number of colonies there can be little need of ventilation from the outside. If the temperature keeps at about 45 degrees, and there is no mold, and no bad smell when you enter the cellar you need have little anxiety.

### Management for Comb Honey.

1. I have 3 colonies of bees; some were caught last spring. Two of these colonies are on the brood-frames, and over the brood-chamber is a board—"a bee-board." Now, this board seems to be glued down by the bees. In the spring should I take the board off and put the supers over the brood-frames, or should I bore holes in the board and put the supers on top of it?

2. What time in the spring should I do this?

3. How much space should there be between the brood-frames and supers, or board, if left on?

4. Sections that have bee-ways on both sides, and where there is only one tier—should the top have a cover on, or should it be left open?

5. How can I tell when they are full?

6. Should sections have foundation at top and bottom, or is the top foundation enough?

7. How can I fasten this foundation? Can I do it without a machine? If so, how?

8. Will I have to smoke the bees when opening to place the supers on? How?

9. What size supers are the best?

10. One colony that I purchased is in a hive 3 stories high—the brood-chamber, and then two above that. The two have no super in, and it is so heavy that two men can hardly lift it, so I suppose the honey that is in there is in all shapes. What would you advise doing with that? Can I by any means place supers in it? If so, how?

11. Should foundation be placed in brood-frames? Should it be done the same as in sections? IOWA.

ANSWERS.—1. I suppose you mean that the hive has movable frames, and that a board covers these frames. The board should be removed when supers are given.

2. In your part of Iowa white clover is probably the first source of surplus honey, and you may give supers when clover first shows bloom.

3. About  $\frac{1}{4}$  of an inch; less rather than more.

4. Unless the cover closes down within a quarter of an inch of the tops of the sections, there should be an inside cover of some kind. But if you have a good flow of honey you will find more than one tier necessary. Don't let your bees lack surplus room.

5. Look and see. Take off the cover, and if you find the sections sealed at top raise up the super and peep below to see if they are sealed down to the bottom.

6. Both ways are used. The bottom-starters makes a more sure thing of having the sections finished down to the bottom-bar.

7. It will pay to buy a machine. One way to do it without a machine is to run melted beeswax along the joint.

8. Unless the bees are very good-natured you will find smoke necessary. Use a bee-smoker.

9. That depends upon the size of your hive. The super should be large enough just to cover the hive.

10. It is perhaps a chaff hive, and if so you will find room enough to put supers inside.

11. Yes, at least you will probably find it best. Some use merely a small starter of foundation in brood-frames, but in that case the bees are likely to build too much drone-comb.

Some of these questions you will find answered in the bee-book you have, and it will pay you to study the book thoroughly.

**Amerikanische Bienezucht**, by Hans Buschbauer, is a bee-keeper's handbook of 138 pages, which is just what our German friends will want. It is fully illustrated, and neatly bound in cloth. Price, postpaid, \$1.00; or with the American Bee Journal one year—both for \$1.75. Address all orders to this office.

## FROM MANY FIELDS

### Bees Did Well.

My bees did very well last year. I have 7 colonies, 3 Italians and 4 blacks. I took about 300 pounds of honey from the Italians. Three of the blacks held their own, and one I had to feed. In the spring I intend to kill all the black queens and introduce Italians.

F. G. ALLIN.

St. Louis Co., Mo., Jan. 29.

### Not a Cold Winter.

This morning (for the first time during this winter) the thermometer went 2 degrees below zero. No snow yet, but we may get more than we like before bees swarm again.

WM. STOLLEY.

Hall Co., Nebr., Jan. 24.

### Fine Season for Honey.

Last season was fine for honey; I got over a ton from 40 colonies, and could have gotten much more if I could have found time to care for the bees, but other work kept me busy so I had to neglect them.

I sold my honey at the house for 12½ cents per pound, and have it all sold. The honey was as fine as any I ever saw.

JOHN A. BLOCHER.

McLean Co., Ill., Jan. 12.

### Swarms Deserting—Bulk Comb Honey.

Pass your cookies, Mr. Hasty. I would like to try them. I suppose they are real honey-cookies, as they should be. It doesn't pay to be too "dead sure" that my bees did not go to the woods (page 41).

I have neither strength nor inclination for anything but bee-culture, and loving it as I do, I am—well—"Johnnie on the spot," you might say. But my best reason, and one I would like to hear commented on, is just this: I have never, to my knowledge, had a colony of bees swarm after once beginning work in the super. I have been wanting to air that for a long time. Is it locality, or what is it? That it is not true of other places I know,

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Healthy, hardy, vigorous trees; finest varieties; honest values. Apples, 50¢; Peach, 50¢; Concord Grapes, \$2.00 per 1000; Rambler Rose, 50¢; Black Currant and Russian Mulberry, \$1.40 per 1000. Freight prepaid. Catalogue free. Gage County Nurseries, Box 646, Beatrice, Neb.

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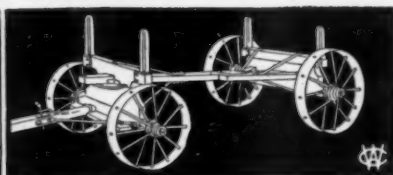
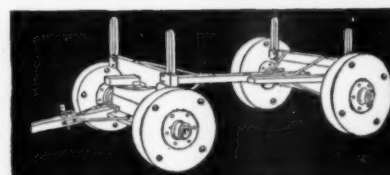
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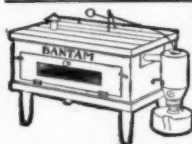
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else why are we advised to change the super from the parent colony to the new in certain cases? When I just can't induce the bees to begin work in the super, then I know there is swarming to be done, and it suits my condition to let them swarm.

While we have no large number of honey-plants scattered throughout the season, with the most of the crop coming in the fall, so that a colony that swarms will, in connection with the swarm, yield more honey than a colony that does not swarm at all. In fact, I have had a prime swarm store within 3 pounds of as much honey as the best one that never swarmed.

It seems, too, that when my bees make up their minds to swarm they just will. I have cut out queen-cells and had them swarm, leaving the parent colony hopelessly queenless, and that, too, after putting them back every day for nearly a week, until I gave up in despair and gave them a new hive.

I produce all my honey *a la* Hyde, bulk comb honey. I have a market for that kind of honey; I also consider it the finest way to

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Salzer's Big Four Oats, 250 bu. per A.  
Salzer's New National Oats, 310 bu. per A.  
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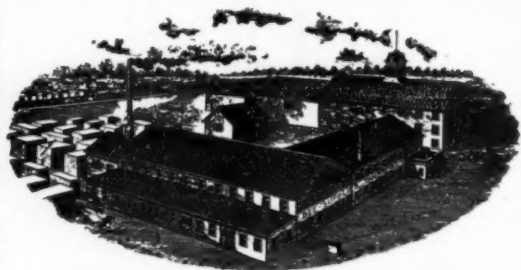
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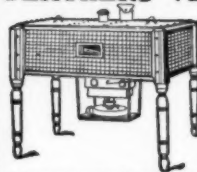


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handle honey. In "Gleanings in Bee-Culture," H. H. Root puts bulk honey as a possible fourth class of honey, giving comb (section honey) first, extracted second, and candied honey as coming third class. If 10 years, or less, doesn't see bulk honey at the head of the list, it will be my turn to furnish the "cookies."

J. T. RENO, JR.

Cedar Co., Mo., Jan. 23.

## Trembles for Outdoor Bees.

It is 15 degrees below zero here this morning, and now at 11 a. m., though the sun is shining brightly, not up to zero yet. We have been, and are, having the most severe winter I have any recollection of. Bees have had no flight, nor scarcely a chance to move more than a couple of times since the middle of November. I tremble for those packed on the summer stands.

MORLEY PETTIT.

Ontario, Canada, Jan. 25.

## Feeding Bees—Bottom-Boards—Bee-Brushes.

I feed bees as follows: Put a heavy cloth over the frames to retain the heat, cut a slot in the cloth toward the front end of the frames 1 inch wide, then put on an empty super over the cloth, put the bee-feed in a 2-quart tin basin, cover the syrup or honey with excelsior, and the bees will do the rest.

I also make bottom-boards as follows: Get lumber full width if you can, if not make them of two pieces; cut them 24 inches long. Now rip a common lath in two strips, and nail the strips on the bottom-board for the hive to rest on. Nail two solid strips under the bot-

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lack sufficient nourishment. Fatten them—make them healthy—feed them **Mrs. Pinkerton's Chick Food**. It prevents bowel trouble. It's all food—easily digested. Write for catalog of prize birds at St. Louis and Chicago 1903 Shows. Gives prices and valuable information.  
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tom-board to hold them rigid, or together; being cut 24 inches long gives the bees a good alighting-board. I think bottom-boards sent out with hives are too short.

There has been quite a discussion about bee-brushes. I like the one I use. It is simply some broom-corn tops tied into a round bundle, 2½ inches thick at the butt. Cut it so as to be 18 inches long, throw out seed, and you will have a good bee-brush.

C. W. COOLER.

Wright Co., Iowa, Jan. 29.

## CONVENTION NOTICES.

**Michigan.**—The Northern Michigan bee-keepers will hold their annual convention March 30 and 31, 1904, in the Montague Hall, 127 Front St., Traverse City, Mich.

GEO. H. KIRKPATRICK, Pres.

Rapid City, Mich.

**Kansas.**—There will be a meeting of the Arkansas Valley Bee-Keepers' Association, at Hutchinson, Kans., Mar. 5, at 10 a.m. All bee-keepers and others interested are respectfully invited to be present.

FRED WILBER, Sec.

**Utah.**—The spring convention of the Utah Bee-Keepers' Association will be held April 5, at 10 a.m. and 4:30 p.m. Among other important questions to be considered will be the World's Fair, our State Fair, and the Portland Fair of 1905. We also desire to formulate some plan, if possible, to further increase the fraternal interest for the mutual benefit of our bee-keepers. We cordially invite all bee-keepers to be present. We also invite them without delay to send in their views on these and other topics. The convention will be held in the City and County building, in Salt Lake City.

Salt Lake City, Utah. E. S. LOVESY, Pres.

**Michigan.**—The Michigan State Bee-Keepers' Association will hold its annual convention, Thursday and Friday, Feb. 25 and 26, at the Agricultural College. The Michigan State Dairymen's Convention will meet at the same place, Tuesday, Wednesday and Thursday, and the round-up institute of the farmers' institutes will be held at the same place from Feb. 23 to 26. One session of the Dairymen's Convention will be a joint session with the institute, and one session of the bee-keepers' convention will be a joint session with the institute. There will be half fare on all Michigan railroads. Dinner and supper can be secured at the College; but visitors will have to go to Lansing for breakfast and lodging. There is an electric line that takes passengers from the College to Lansing for 5 cents.

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## HONEY AND BEESWAX

MARKET QUOTATIONS

CHICAGO, Feb. 8.—The demand is better for all grades of honey than at any time since the beginning of December of last year. Stocks are now being reduced, but at the same time prices are easy. Many have had it so long that they are anxious to make sales. No. 1 to fancy white comb honey sells at 12@13c; amber grades, 10@11c; dark, etc., 9@10c. Extracted, white, 6@7c, according to quality, kind and flavor; amber, 5@6c. Beeswax, 30c.

R. A. BURNETT &amp; CO.

CINCINNATI, Feb. 8.—There is a fair demand for honey, but nearing the end of the season for comb honey, with large supply, has pressed the prices; fancy white, 13@14c; amber, in barrels, 5½@5¾c; in cans, ¼c more; alfalfa, water-white, 6@6¼c; fancy white clover, 7¼@8c. Beeswax, 30c.

C. H. W. WEBER.

PHILADELPHIA, Feb. 8.—There has been a decided decline in comb honey since last quotations. Bee men who have little lots held back and are afraid they can't dispose of it before warm weather, are shipping it in, selling at any price they can get, breaking the market decidedly. We would quote fancy white at 14@15c; No. 1, at 12@13c; amber, 10c. Extracted, white, 6@7c; amber, 5@6c. Beeswax, 31c. We are producers of honey and do not handle on commission.

WM. A. SELSER.

CINCINNATI, Jan. 25.—The demand for honey shows little life at the present time. Have an ample supply, although we are looking for a revival of trade in the near future. Prices are declining, owing to the superfluous quantity in this country. We are selling amber extracted in barrels at 5½@6c; white clover, 6¼@8c, according to quality. Fancy comb honey selling slow at 14@15c. Beeswax, good demand, at 30c.

THE FRED W. MUTH CO.

ALBANY, N. Y., Feb. 1.—Honey demand very light. Prices of comb honey are largely now what the buyers will offer—from 10@15c. We look for better demand when weather is warmer. Extracted doing some better at 7c for white, 6½c for mixed, and 5½@6c for dark and buckwheat. Beeswax, 28@30c.

H. R. WRIGHT.

BOSTON, Feb. 9.—There is little change to note in the honey market. Strictly fancy Eastern honey is scarce. Western honey will not bring as much here. We quote fancy white in glass-front cases at 16c; No. 1, at 15c. Supply is ample, and demand light at this time. Extracted, water-white, 8c; light amber, 7@8c; with but little call for dark Florida.

BLAKE, SCOTT &amp; LEE.

KANSAS CITY, Feb. 9.—Another cut in the price of comb honey since our last quotations. Strictly No. 1 white comb was sold at \$2.25 per case of 24 sections. We are holding our stock at \$2.50, with the hope of a better market, but if shipments continue, we will have to let go with the rest. The supply of extracted is large, and the demand light, at 6¼@7c for white, and amber at 5¼@6c. Beeswax in demand at 30c.

C. C. CLEMONS &amp; Co.

NEW YORK, Dec. 4.—Comb honey is arriving in sufficient quantities to supply the demand, and, as to the quality, most of the white honey seems to be of off color, more or less. We quote fancy white at 14c; No. 1 at 13c; amber, 11@12c; and buckwheat, 10c. Extracted, light amber, at 6c; white, 6½c; Southern, 55@60c per gallon; buckwheat, 5½c. Beeswax, 28@29c.

HILDRETH &amp; SEIGELKEN.

SAN FRANCISCO, Feb. 3.—White comb, 1-lb. frames, 12¼@13c; amber, 9@11c. Extracted, white, 5½@6c; light amber, 4¼@5c; amber, 4@4¼c; dark amber, 3¼@4c. Beeswax, good to choice, light, 27¼@29c; dark, 25@26c.

The same quiet condition previously noted is prevailing in the honey market. In quotable values there are no changes to note, but large sales are not possible at full figures. That the coming crop in this State will be light seems to be now very clearly foreshadowed.

## HONEY AND BEESWAX

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